Chapter 3 Implementation Plan

Chapter 3 Implementation Plan

3-1 Implementation Concept

3-1-1 Implementation Concept

The project will be implemented on the basis of the Exchange of Note between the Government of Kazakhstan and the Government of Japan. The Agency for Health Matters of the Kazakhstan government, acting as the supervisory organization, will appoint a Japanese consultant who will supervise and manage the entire procurement process, ranging from detailed design, preparation and distribution of tender documents, tender evaluation and contract award, and supervision of equipment installation. The supervisory organization will conclude contracts with Japanese equipment suppliers who will be responsible for procurement, transportation, and installation of equipment, followed by the commissioning of equipment and training for operation and maintenance of personnel of the recipient facilities.

Installation work will be carried out by local work force under the supervision of an experienced engineer, who will be responsible for wiring, assembly of components, commissioning and adjustment. The engineer will provide training for operation and maintenance.

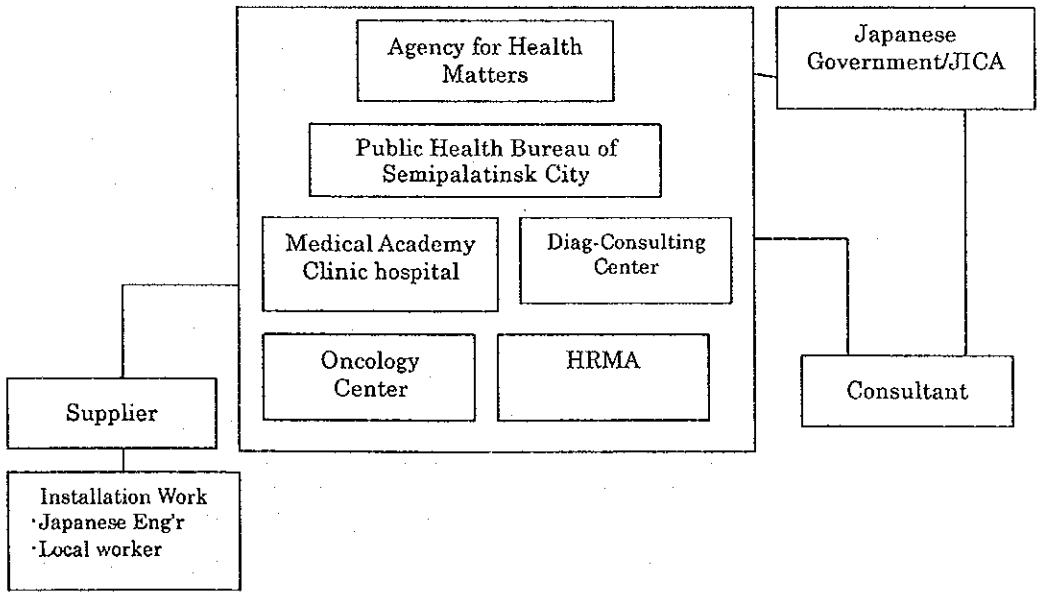

Fig.22 Project Implementation Organization

The implementation organization is led by Public Health Bureau of the Semipalatinsk

municipal government, which coordinates activities of the four recipient facilities.

3-1-2 Implementation Conditions

The following factors call for special attention to ensure smooth implementation of the project.

1) Safety certificate

Medical equipment and electronic equipment, when brought into Kazakhstan, must accompany the safety certificate stating that the equipment complies with the country's standards (KAZSTANDARD) in terms of quality and performance. As the certificate needs to be obtained and submitted prior to customs clearance procedures, compliance with KAZSTANDARD must be checked when tender specifications are draught. Also, the Agency of Health Matters and Semipalatinsk City are responsible for applying and obtaining the certificate at their own costs, and they are expected to maintain close communication with related authorities in order to ensure smooth customs clearance.

2) Tax-exempt certificate

For medical equipment to be tax exempted when it is imported, the tax exemption status should be approved by the National Customs Committee and a tax exempt certificate should be obtained prior to customs clearance procedures. In particular, careful preparation and arrangement will be required for the motor vehicle whose imports are subject to strict check.

3) Transportation route

The best transportation route for equipment to be procured in Japan is the use of marine container transport from Japan to Nakhodka, followed by rail transport using the Trans-Siberian Railroad, because the same railroad gauge is used up to Semipalatinsk to eliminate the need for transshipment, together with the ability to obtain latest information on the route and no need for container purchase. As for the mobile examination unit, it should be securely enclosed by wooden crates and boards as outfit parts are often stolen on the way.

Some equipment may have to be brought from Europe, in which case trucks will be used. As there is a customs house in Semipalatinsk and all the recipient facilities are located within the city, smooth transport is expected.

4) Storage

At present, transportation of equipment is expected to take place in the spring. Immediately after customs clearance, equipment can be transported to each site and will be installed immediately without the need to store it for a long period of time.

5) Construction work

As most equipment to be supplied is to replace existing equipment, there is no need for major construction work to accommodate and install particular equipment, including X-ray equipment. Note that the C arm surgical X-ray unit is of mobile type, there is no need for radiation shields. If any floor reinforcement is required, the work should be so scheduled to avoid the winter season.

3-1-3 Scope of Works

Service and work to be provided by the Japanese side

① Procurement of planned equipment, transportation and delivery to the project sites and installation and assembly at the projected sites ;
② Secondary-side electrical wiring from distribution boards;
③ Guidance in test operation/adjustment, regular operation and maintenance of planned equipment;
④ Technical support and training for equipment operation and maintenance.
⑤ Consulting services during preparation of detailed design and tender documents, bidding and supervision of work execution

Service and work to be provided by the Kazakhstan counterpart

① Securing of equipment storage;
② Sufficient power supply to distribution boards in or near each installation rooms;
③ Provision of water supply and drainage piping to the installation site; and
④ Removal or relocation of old equipment and other obstacles.

3-1-4 Consultant Supervision

The consultant, under the contract to the supervisory organization, will conduct detailed design and supervise the procurement and installation process according to the guideline of Grant set by the Japanese government, terms and conditions of the consulting agreement, and the scope and intent of preliminary design. The consultant will also assist the Kazakhstan counterparts in key technical matters, proceed with grant procedures in Japan, and render other services required to implement the project in an efficient and effective manner and accomplish the objective of the project. For this purpose, the consultant will organize a project implementation team consisting of full-time members to ensure that the project progresses smoothly up to the final stage of completion. In the actual work stage, the consultant will supervise the progress of equipment procurement and installation by checking and approving shop drawings, attending at the manufacturer's shipment inspection, and sending engineers to installation and delivery inspection. Finally, the consultant will be responsible for monitoring the progress of preparation work for equipment installation to be carried out by the Kazakhstan side, and recommending corrective measures if a significant delay occurs, to the extent necessary to ensure the progress of the project according to the schedule.

3-1-5 Procurement Plan

Equipment supply sources will be selected in consideration of ease of maintenance, availability of after-sales service, and product availability, quality and price in the country. As Kazakhstan does not produce equipment that meets specifications required under the project, the procurement plan should envisage the purchase of products made in Japan. For the following equipment, however, American or European products are acceptable so long as they meet quality and performance requirements in tender specifications because they require after-sales service and spare parts and supplies within the country. Also, qualified maintenance engineers are required for X-ray equipment, endoscope and other equipment that require careful maintenance, as listed below:

(1) CT scanner

(2) Surgical X-ray equipment (C arm)

(3) X-ray TV system
(4) Chest X-ray equipment
(5) Automatic film processor
(6) Ultrasound unit (B/W, stationary)
(7) Ultrasonic unit (portable)
(8) Ultrasonic unit (Color Doppler)
(9) Automatic biochemical analyzer
(10) Blood gas analyzer
(11) Automatic blood cell counter
(12)Ventilator (for adult and children)
(13) Anesthesia apparatus (for adult and children)

3-1-6 Implementation Schedule

The project will be implemented in the following steps.

(1) Implementation design and tendering

Based on the preliminary design report, detailed specifications for equipment will be determined and tender documents will be prepared. After the approval of the Kazakhstan and Japanese governments, tender procedures will be carried out, followed by evaluation and contract award. This process will take 4.5 months.

(2) Equipment procurement and installation

Equipment suppliers will prepare and submit drawings for approval of floor layout plan, and manufacture equipment, and transport and deliver it to each project site using marine and land transportation, followed by unpacking, installation, commissioning and adjustment, and training of personnel of the recipient facilities for operation and maintenance.

When all the equipment as installed complies with contract specifications, it will be formally delivered to the facilities and the implementation body will issue a completion certificate to suppliers. If the project proceeds smoothly, the period between the awarding and completion of the supply contract will be around 7

months.

The work schedule is presented in Fig.23.

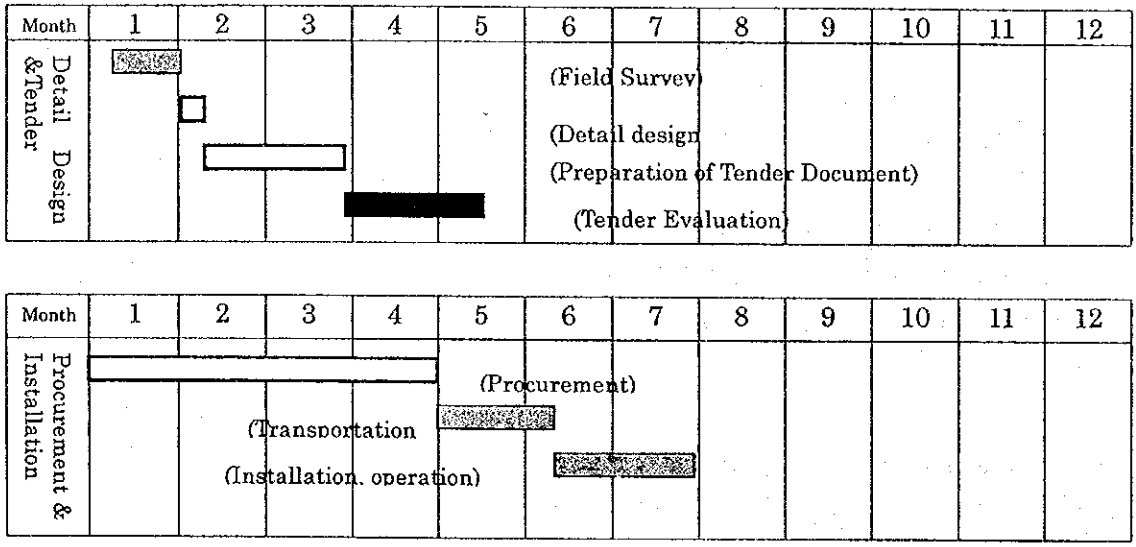

Fig.23 Implementation Schedule

3-1-7 Obligations of Recipient Country

The Kazakhstan government is required to provide the following works and services whenever required to implement the project.

(1) To perform preparatory work required for equipment installation, including:
   1) Floor reinforcement (for CT scanner and radiation equipment)
   2) Electrical work
   3) Water supply and drainage work
   4) Relocation of equipment to be replaced

(2) To ensure that the equipment supplied is exempted from import duties, ensure smooth customs clearance and transportation of equipment, and bear related costs and expenses.

(3) To exempt customs duties, taxes and other public charges imposed on Japanese personnel who is engaged in equipment supply and service under the project.

(4) To pay related banking service fees.

(5) To execute the procedure for obtaining the approval of KAZSTANDARD (safety certificates) relating to the equipment to be imported and bear the cost for this procedure.

(6) To provide necessary service and protection for Japanese personnel who is engaged in equipment supply and service under the project, upon his entry to and exit from the country as well as during his stay.

(7) To properly operate and maintain all the equipment to be supplied under the project.

(8) To bear all related costs and expenses not covered by the project budget.

(9) To issue approval, license and other authorization related to the project.

3-2 Project Cost Estimation

Project costs to be borne by the Kazakhstan government, if the project is implemented under Japanese Grant, are estimated according to the following assumptions.

Project costs to be borne by the Kazakhstan government

1) Equipment installation costs

i) Medical Academy Clinic hospital & Pediatric Hospital 180,000 Tenge
(for preparation work for X-ray unit installation)

ii) Diagnostic-Consulting Center 1,060,000 Tenge
(for preparation work for CT scanner, X-ray TV and garage reform)

For other equipment, no work will be required by the Kazakhstan counterpart.

2) Banking arrangement fee (foreign exchange bank): $17,500 (1.86 million yen)

Assumptions for cost estimation

1) Base month/year: December 1999

2) Foreign exchange rate: 1US$ = 105.8 yen = 140 Tenge

3) Work period: As shown in the work schedule.

4) Other: This project will be implemented according to the terms and conditions set forth in the Japanese Grant.

3-3 Operation and Maintenance Costs

Equipment maintenance and expendable supplies costs of the four facilities, covering both the existing and new equipment, are summarized as follows.

Table 4 Cost comparison with existing and newly introduced equipment (Tenge)

	Medical Academy Clinic hospital	Diagnostic-Consulting Center	Oncology Center	HRMA
Existing				
maintenance	2,050,000	479,995	1,616,079	267,300
consumables	1,814,700	379,700	856,617	360,000
Total	3,864,700	859,695	2,472,696	627,300
Newly introduced				
maintenance	931,000	1,330,000	146,300	0
consumables	4,518,010	19,951,000	1,840,720	324,520
Total	5,449,010	21,281,000	1,987,020	324,520
Existing+New				
maintenance	2,981,000	1,809,995	1,762,379	267,300
consumables	6,332,710	20,330,700	2,697,337	684,520
Total	9,313,710	22,140,695	4,459,716	951,820

A combined total of previous maintenance and supplies costs and additional costs as a percentage of total expenditures in 1998 is calculated as follows:

(1) For Medical Academy Clinic Hospital (including Children's Hospital), maintenance and supplies costs for existing equipment totaled 3,864,700 Tenge, representing 3.69% of total expenditures (104,782,080 Tenge) in 1998. A combined total of previous maintenance and supplies costs and additional costs are 9,313,710 Tenge, accounting for 8.89%. The additional cost of 5,449,010 Tenge due to new equipment can be absorbed by the surplus in the annual budget.

(2) For Diagnostic-Consulting Center, maintenance and supplies costs for existing equipment totaled 859,695 Tenge, representing 1.76% of total expenditures (48,673,019 Tenge) in 1998. On the other hand, a combined total of previous maintenance and supplies costs and additional costs accounts for 45.49% (22,140,695 Tenge). The additional cost of 21,281,000 Tenge is fairly large and will be covered by the central government's financial assistance.

(3) For Oncology Center, maintenance and supplies costs for existing equipment totaled 2,472,696 Tenge, representing 4,89% of total expenditures (50,566,330 Tenge) in 1998. A combined total of previous maintenance and supplies costs and additional costs will rose to 8.82% (4,459,716 Tenge), and the additional cost of 1,987,020 Tenge will be covered by the state government's financial assistance.

(4)For HRMA, maintenance and supplies costs for existing equipment totaled 627,300 Tenge, representing 0.40% of total expenditures (156,255,000 Tenge) in 1998. On the other hand, a combined total of previous maintenance and supplies costs and additional costs accounts for 0.61% (951,820 Tenge) and can be borne by the municipal government.

Chapter 4 Project Evaluation and Recommendation

Chapter 4 Project Evaluation and Recommendation

4-1 Project Effect

(1) Direct benefits

1) Adequate examination and diagnosis on local residents in the highly contaminated area and 400,000 people in Semipalatinsk City

Approximately 27,000 people living in the high radioactive contaminated areas of Beskaragai, Jana Semey, Abai and Chuvaltau have being fearing for negative impacts of nuclear tests over the past four decades. The project will allow these people to receive appropriate medical examination, diagnosis and advice. Also, it will serve 400,000 people in Semipalatinsk City, who have the same fear.

2) Improvement of quality of diagnosis

Medical staff at the four facilities have relatively high levels of diagnostic skills, which cannot be fully utilized due to deterioration or shortage of medical equipment. The project focuses on supply of diagnostic equipment and will thus enable the recipient facilities to provide appropriate examination for local residents (including X-ray, blood and urinal tests) and to perform precise or final diagnosis on patients showing signs of cancers caused by radioactive contamination, without sending them to Astana or Almaty.

3) Establishment of a formal screening system

The project will help establish systematic procedures from primary screening to final diagnosis, which will allow efficient screening of a large number of people. Also, as testing items required in precise or final diagnosis are identified accurately in the primary screening process, efficiency of diagnosis can be ensured. Therefore, this screening system eliminates unnecessary examination and diagnosis by medical institutions, while minimizing the burdens for patients.

(2) Indirect benefits

1) Contribution to the government's public health policy and its objective

Kazakhstan has set "People's Health" as one of its national objectives in an aim to improve health conditions of people as a basic right under the constitution. On the other hand, the government has not produced substantial results related to health management of radioactive victims, although it has been making efforts, including the establishment of the law to support them. In this connection, the project will contribute to the improvement of the government's public health service, particularly those fearing the aftermath of exposure to radioactive fallout, and will help achieve the national objective.

2) First opportunity to collect medical data on local residents subject to long-time exposure

Although the data showing environmental impacts of nuclear tests have been disclosed, health impacts on local residents have not been determined. The extensive examination enabled by the project, ranging from primary screening to precise and final diagnosis, will reveal the true picture of health damage caused by fallout on an epidemiological basis.

While direct beneficiaries of the project are 400,000 people living in the Semipalatinsk area, the project will indirectly benefit an entire 1.6 million population of the East Kazakhstan Oblast. Also, the project will help the much-needed upgrading of equipment which was installed in the former Soviet era and left to deterioration due to the lack of funds after the country's independence in 1991. As it will supply only equipment that will either replace or supplement existing equipment, there will be no significant burdens on the recipient facilities in terms of manpower and skill. Besides, as the project will incur large equipment maintenance costs, especially primary screening and diagnosis using the mobile examination unit, special budget allocation has been committed by the Agency for Health Matters of the Republic of Kazakhstan. In consideration of these factors, it is considered to be appropriate for the project to be implemented as grant-in-aid by the Japanese government.

Key Factors for Success

To ensure effective implementation of the project, the following points constitute key success factors.

(1) Cooperation and support for the coordinating organization

The project will be implemented by the four medical institutions, Medical Academy Clinic Hospital, Diagnostic-Consulting Center, Oncology Center, and HRMA, whose activities will be coordinated by Public Health Bureau of the Semipalatinsk city government. In reality, however, the department is in a difficult position to coordinate activities of municipal medical institutions and institutions that are supervised by the oblast government. In this connection, it is important for Medical Academy Clinic Hospital to take leadership in providing cooperation and support for smooth implementation of the project.

(2) Need for a proper management system for spare parts and expandable supplies

To operate equipment under budget constraints, it is imperative to establish a system to control the inventory and use of spare parts and supplies in an efficient manner.

(3) A mechanism to ensure the effective use of equipment by monitoring operating rates

An annual operating rate of each equipment should be monitored according to the check list that is prepared according to characteristics of equipment, in order to use it most effectively.

4-2 Recommendations

(1) Need to establish a comprehensive plan for mobile examination

As mobile examination serves sparsely populated, remote areas (150km on average from Semipalatinsk City, 300km at maximum), it is important to make a systematic plan to ensure the efficient use of resources including the mobile examination unit.

The plan should include the method for notification to local residents, a preliminary visit schedule including an estimated number of patients, resource mobilization including medical staff, on-board equipment and chemical reagents, the method for communication with the center, and an accommodation plan.

(2) Need for follow-up to ensure the central government's financial support for primary screening costs

As primary screening using the mobile examination unit will cover 27,000 people in the high radioactive contamination area, it will require substantial costs. While the central government has committed to financial assistance to cover these costs, it is important to keep a regular communication channel with the central government for follow-up purposes.

(3) Securing of budget approval for operation and maintenance costs for new equipment

These costs will be financed by public health bureau of the East Kazakhstan Oblast and Semipalatinsk city governments that have committed to adequate budget allocation for the respective medical institutions they supervise. As these budgets are essential in operating new equipment on a sustainable basis, the recipient facilities are expected to keep contact with the upper organization respectively for follow-up.

APPENDICES

Appendix-1 Member List of Survey Team

1.1 Basic Design Survey Team

(1) Team Leader

Mr. Toshiyuki IWAMA

Deputy Director, Second Project Management Div.,

Grant Aid Management Dept, JICA

(2) Technical Advisor:

Dr. Nobumasa TSUJIMURA

Supervisor, Welfare & Health Division, Nagasaki Prefecture

(3) Project Manager:

Mr. Kazuo SEKIGUCHI

UNICO International Corporation

(4) Medical Equipment Planner

Mr. Kenzo MAKI

UNICO International Corporation

(5) Facilities and Utilities Planner

Mr. Yukio EDOGAWA

UNICO International Corporation

(6) Cost & Procurement Planner

Mr. Chikashi BANDO

(7) Interpreter

Mr. Yoshiyuki MURAI

UNICO International Corporation

1.2 Explanation of Basic Design Draft Report Team

(1) Team Leader

Mr. Toshiyuki IWAMA

Deputy Director, Second Project Management Div.,

Grant Aid Management Dept, JICA

(2) Project Manager:

Mr. Kazuo SEKIGUCHI

UNICO International Corporation

(3) Medical Equipment Planner

Mr. Kenzo MAKI

UNICO International Corporation

(4) Interpreter

Mr. Yoshiyuki MURAI

UNICO International Corporation

Appendix-2 Survey Schedule

2.1 Basic Design Survey

No	Date		Officials	Consultants	
			Mr.Iwama,Dr.Tsujimura	Sekiguchi, Maki, Murai	Edogawa, Bando
1	Oct. 17	Sun	Ar.Almaty	Lv.Japan	
2	Oct. 18	Mon	Ar.Astana/AHM	Ar. Almaty	
3	Oct.19	Tue	Ar. Almaty / Embassy of Japan		
4	Oct. 20	Wed	AM: Mayor of Semipalatinsk (Courtesy call) PM:Public Health Bureau / Medical Academy Clinic Hospital / Oncology Center		
5	Oct. 21	Thu	AM: Diagnosis Center / Public Health Bureau (meeting) PM:Diagnosis Center (meeting) / Internal Meeting		
6	Oct. 22	Fri	AM: Medical Academy Clinic Hospital(meeting) PM: Oncology Hospital(meeting) / Internal Meeting		
7	Oct. 23	Sat	AM: Public Health Bureau (Semipalatinsk)		
8	Oct. 24	Sun	Semipalatinsk→Almaty		Rural Area Site Survey
9	Oct. 25	Mon	Almaty→Astana、ASP/AHM/MOFA		Diagnosis Center, Site survey
10	Oct. 26	Tue	AM: AHM(minutes conclusion) / Astana Pediatric Hospital PM: ASP / MOFA		Diagnosis Center, Site survey
11	Oct. 27	Wed	AM: Astana→Almaty, Embassy of Japan (report)		Medical Academy Clinic Hospital
				PM: Almaty→Semipalatinsk	
12	Oct. 28	Thu	Lv: Almaty	Public Health Bureau	Medical Academy Hospital
13	Oct. 29	Fri		Medical Academy Hospital / Diagnosis Center / Oncology Center	
14	Oct. 30	Sat		Internal Meeting	
15	Oct. 31	Sun		Internal Meeting	Semipalatinsk→Almaty
16	Nov. 1	Mon		Public Health Bureau	Market Survey
17	Nov. 2	Tue		Public Health Bureau/Oncology Center	Market Survey
18	Nov. 3	Wed		Public Health Bureau/ Diagnosis Center	Dealer Survey
19	Nov. 4	Thu		Public Health Bureau	Lv. Almaty
20	Nov. 5	Fri		Oncology Center	Ar. Japan
21	Nov. 6	Sat		Internal Meeting	
22	Nov. 7	Sun		Semipalatinsk→Almaty→Astana	
23	Nov. 8	Mon		AHM / ASP / AHM / MOFA	
24	Nov. 9	Tue		Astana→Almaty→Semipalatinsk	
25	Nov. 10	Wed		Public Health Bureau / Medical Academy Clinic Hospital	
26	Nov. 11	Thu		Diagnosis Center	
27	Nov. 12	Fri		Semipalatinsk→Almaty, Embassy of Japan, World Bank	
28	Nov. 13	Sat		Internal Meeting	
29	Nov. 14	Sun		Lv. Almaty	
30	Nov. 15	Mon		Ar. Japan	

Remarks:

ASP=Agency of Strategic Planning
AHM=Agency of Health Matters
MOFA=Ministry of Foreign Affairs

2.2 Explanation of Basic Design Draft Report

No	Date		Official	Consultants
			Mr. Iwama	Sekiguchi, Maki, Murai
1	Mar.18	Sat		Lv. Japan
2	Mar.19	Sun	Ar.Almaty→Astana	Ar. Almaty
3	Mar.20	Mon		Almaty→Astana
4	Mar.21	Tue	Agency of Health Matters (Discussion on Minutes) Astana→Almaty	
5	Mar.22	Wed	Almaty→Semipalatinsk	
6	Mar.23	Thu	Discussion on Minutes	
7	Mar.24	Fri	Minutes Conclusion// Mr.Iwama Semipalatinsk→Almaty (Report to Embassy of Japan)	
8	Mar.25	Sat	Lv. Almaty	Public Health Bureau / Znamenka Site Survey
9	Mar.26	Sun	Ar. Japan	Site Survey of Sites (confirmation of location)
10	Mar.27	Mon		Public health Bureau /Doron Village
11	Mar.28	Tue		Turkship/Chakaman/Bukenchi Site Survey
12	Mar.29	Wed		Public Health Bureau / Diagnosis Center
13	Mar.30	Thu		HRMA
14	Mar.31	Fri		Oncology Center / Public Health Bureau
15	Apr.1	Sat		Public Health Bureau / Medical Academy Clinic Hospital
16	Apr.2	Sun		Internal Meeting
17	Apr.3	Mon		Academy Hospital / Public Health Bureau / HRMA
18	Apr.4	Tue		Public Health Bureau / Diagnosis Center
19	Apr.5	Wed		Semipalatinsk→Almaty
20	Apr.6	Thu		Aksai Pediatric Hospital(follow-up survey) / Embassy of Japan (report) / Market Survey
21	Apr.7	Fri		Lv. Almaty
22	Apr.8	Sat		Ar. Japan

Appendix –3 List of Party Concerned in the Recipient Country

3.1 Basic Design Survey

Agency for Health Matters

RAHIPUBEKOV,	Acting Chairman
MUSINOV,	Director, Public Health Div.
KIRGIZBAEV Kupzuzbaev C.,	Specialist, Administration Div.

Agency for Strategic Planning

ARYNOV A. Erlan,	Chief of Administration
INAGAKI	Advisor

Ministry of Foreign Affairs

ZVERKOV Vadim P.	Head of International Economic Cooperation

Semipalatinsk City

CHAIZHUNUSOV	Mayor
YENSEBAYEV Ruslan Z.	Director, Dept. of Health
MAKASHOV A.	Deputy Director, Dept. of Health
VAKLENKO S.	Chief Specialist, Health
UNISUMBAEV B.C.	Director, Dept. of Education
TULEUBAEV A.I.	Director, Dept. of Social Adjustment
MASALIMOV A.I.	Director, Dept. of Culture
BAKATAZHAROV	Chairman, Committee of Industry, Transportation and Communication
SAMAEV T.Sh.	Chairman, Committee of Foreign Affairs
SHAKEEV T.Sh.	Chairman, Committee of Commerce and Service
IBRAEV S.S.	Director, Dept. of Environment Protection
MARDENOV M.Sh	Director, Dept. of Construction
IBRAEV Zh.S.	Director, Dept. of Interior

Semipalatinsk Medical Academy & Clinic Hospital

RAISSOV Tolegen. K.	President of Medical Academy
TULEUTAEV Muhtar E.	Director, Medical Academy Hospital
MASALIMOV Esengazi O.	Dupty Director
AFTOSHENKO S.	Chief, Radiology
MUKANOV K.	Chief, Endoscopy
JAKHPUBEKOVA M.	Chief, Clinical laboratory
MUKASHOV Z.	Chief, Ultrasound Diagnosis
MIHAILENKO Y.	Chief Technician

Semipalatinsk Diagnosis-Consulting Center

CHUVILEV Viktor I.	Director
ZHAKSYLYKBAEVA S.	Deputy Director
ANDOREEV	Director, Finance

Regional Oncology Center

SANDYBAEV Marat N.	Chief Doctor
IBRAEV Nulman S.	Dupty Chief Doctor
AVIHEVA Zh.	Chief, Onco-gynecology
KANAFIN G.	Chief, ICU
KARNECKAJA B.	Chief, Pathology
YUSEVA R.	Chief, Clinical laboratory
IBRAEVA ZH.	Clinical Laboratory
GALINSKAYA L.	Chief, Radiology
TAVASUK L.	Chief, Cytology
JARSENBIKE L.	Chief, Out-patient Dept.

HRMA(Hospital of Rapid Medical Assistance)

MOUSIN K.R.	Director
NAVIEV A.	Deputy Director

National Scientific Research Institute for Radiation Medicine and Ecology

SEKERBAYEV Alexander Kh.	Director

Embassy of Japan, in Rep. of Kazakhstan

TATEYAMA Akira	Counsellor
NISHIYAMA Kaoru	First Secretary
SUDA Atsushi	Second Secretary

3.2 Explanation of Basic Design Draft Report

Agency for Health Matters

OMAROVA Mariyam N.,	Chairman
IBRAEV Serik E,	First Director.
MUSINOV,	Director, Public Health Div.

Semipalatinsk City

OMAROV Nurlan S.	Mayor
CAMAEV Aidar K.	Vice Mayor
YENSEBAYEV Ruslan Z.	Director, Dept. of Health
MAKASHOV A.	Deputy Director, Dept. of Health

Semipalatinsk Medical Academy Clinic Hospital

TULEUTAEV Muhtar E.	Director, Medical Academy Hospital
MASALIMOV Esengazi O.	Deputy Director

Semipalatinsk Diagnostic-Consulting Center

CHUVILEV Viktor I.	Director
ZHAKSYLYKBAEVA S.	Deputy Director

Regional Oncology Center

SANDYBAEV Marat N.	Chief Doctor
IBRAEV Nulman S.	Deputy Chief Doctor

HRMA

MOUSIN K.R.	Director
NAVIEV A.	Deputy Director
TULEUTAEVA	Deputy Director

Embassy of Japan, in Rep. of Kazakhstan

SUDA Atsushi	Second Secretary

Appendix 4. Minutes of Discussion

MINUTES OF DISCUSSION ON THE BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT OF MEDICAL EQUIPMENT FOR SEMIPALATINSK REGION IN THE REPUBLIC OF KAZAKHSTAN

In response to a request from the Government of Kazakhstan (hereinafter referred to as "Kazakhstan") the Government of Japan decided to conduct a Basic Design Study on the Project for Improvement of Medical Equipment for the Semipalatinsk Region (hereinafter referred to as the "Project") and entrusted it to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sends to Kazakhstan the Basic Design Study Team (hereinafter referred to as the "Team") which is headed by Mr. Toshiyuki Iwama, Deputy Director of the Second Project Management Division, Grant Aid Project Management Department, JICA, and is scheduled to stay in the country from October 18 to November 14, 1999.

The Team held discussions with the officials concerned of the Government of Kazakhstan and conducted site surveys.

In the course of the discussions and site surveys, both parties confirmed the main items described on the attached sheets. The Team will proceed to further works and prepare the Basic Design Study Report.

Astana, October 26, 1999

Mr. Toshiyuki Iwama
Leader
Basic Design Study Team, JICA

Mr. Tolebai K. Rakhypbekov
Acting Chairman
Agency of the Republic of
Kazakhstan for Health Matters

Mr. Erlan A. Arynov
Chief of Administration for
Coordination of External Aid
Agency of the Republic of
Kazakhstan for Strategic Planning

Vadim P. Zverkov
Director, Department of International
Economic Cooperation
Ministry of Foreign Affairs
Republic of Kazakhstan

Mr. Marken J. Chayzhunusov
Mayor of Semipalatinsk City
East Kazakhstan Region Deputy Akim

ATTACHMENT

1. Objective
The objective of the Project is to improve the medical services to patients with potential health problem as a result of radioactive effects through procurement of medical equipment.

2. Project Sites
The sites of the Project are the Semipalatinsk Hospital affiliated by Semipalatinsk Medical Academy, the Semipalatinsk Diagnostic-Consultancy Center and the Regional Oncological Hospital.

3. Responsible and Executing Organization
(1)The responsible agency is the Agency of the Republic of Kazakhstan for Health Matters (hereinafter referred as the "Agency").
(2)The implementing agencies are the Department of Health of the City of Semipalatinsk and the organizations mentioned under 2. above.

4. Items Requested by the Government of Kazakhstan
Items necessary to perform activities listed in Annex 1 are confirmed by both sides for further consideration. Concrete number and sites of installation will be determined after further surveys and discussions. JICA will apply the criteria shown in Annex 2 to assess the appropriateness of the request.

5. Japan's Grant Aid System
The Government of Kazakhstan understands Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of Kazakhstan as described in Annex 3 and Annex 4 respectively.

6. Schedule of the Study
6-1. The consultant members of the Team will proceed to further studies in Kazakhstan until November 14, 1999.
6-2. JICA will prepare a draft report in English and dispatch a mission in order to explain its contents around March 2000.
6-3. If the contents of the draft report are accepted in principle by the Government of Kazakhstan, JICA will complete the final report and send it to the Government of Kazakhstan around May 2000.

7. Other Relevant Issues
7-1. A committee to coordinate medical assistance to Semipalatinsk under the chairmanship of the Agency is set up. It coordinates the activities in diagnosis and treatment of the people possibly affected by the radiation in the area. According to the explanation from the Agency, the diagnosis and examination will be performed by the Semipalatinsk Diagnostic-Consultancy Center while the treatment will be done by other medical organizations.
7-2. The number of people targeted by this Project is estimated to be 27,000 who live in the area believed to be exposed to the highest doses of radiation from the Polygon experimental sites.
7-3. Equipment provided by the Grant Aid will have a guarantee period of one year. Thereafter, it is subject to maintenance by the recipient.
7-4. Discussions on the overall program of the improvement of medical services in Semipalatinsk region are held between the Kazakhstani side and the JICA Mission on Technical Cooperation at the same time. Members of the Basic Design Study Team also participated in meetings.

ANNEX 1

Table of organization and functional section which submitted request for equipment

Organization / Function	Semipalatinsk Medical Academy Hospital	Semipalatinsk Diagnostic Center	Region Oncological Hospital
Surgery	○		○
Endoscopy	○	○	○
Mobile Examination	○	*	○
Reanimation	○		○
Functional Examination	○	○	
Clinical Laboratory	○	○	○
X-ray/CT Diagnosis	○	○	○
Pathology	○		○

Remark: * after the discussion between the Kazakhstani side and the Team

ANNEX 2

Criteria for Selection of Equipment

Equipment supporting the activities of the technical cooperation from the Government of Japan will have the highest priority. Moreover, following criteria will be applied.

Equipment which has high priority

(1) Basic medical equipment which contributes to the improvement of medical services to the patients with potential health problem as a result of radioactive effects.
(2) Renewal or supplement of existing medical equipment.
(3) High frequency of use.
(4) Cost effectiveness in terms of operation, maintenance, spare parts and consumable.
(5) Equipment for the activities of generally established medical viability.
(6) Organization will exist during the life of the equipment.
(7) Responsible person is clearly assigned.

Equipment which has low priority or to be deleted

(1) For mainly research purposes.
(2) No concrete plan of maintenance.
(3) Not consistent with existing equipment and current level of technique.
(4) No proof of finance for supply of spare parts and consumable.
(5) No proof of supply sources of spare parts and consumable.
(6) Easily obtained within the country and within the budget of the organization.
(7) Possible negative effects to the environment.
(8) Limited manufacturing.
(9) Space for installation is not secured or appropriate.

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Japan's Grant Aid Program

1. Japan's Grant Aid Procedures

(1) The Japan's Grant Aid Program is executed by the following procedures.
Application (request made by a recipient country)
Study (Basic Design Study conducted by JICA)
Appraisal & Approval (appraisal by the Government of Japan and approval by the Cabinet of Japan)
Determination of Implementation (Exchange of Notes between both Governments)
Implementation (implementation of the Project)

(2) Firstly, an application or a request for a Grant Aid project submitted by the recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Japan's Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA to conduct a study on the request.

Secondly, JICA conducts the study (Basic Design Study), using (a) Japanese consulting firm(s).

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Program, based on the Basic Design Study Report prepared by JICA and the results are then submitted to the cabinet for approval.

Fourth, the project approved by the cabinet becomes official with the Exchange of Notes signed by the Government of Japan and the recipient country.

Finally, for the implementation of the Project, JICA assists the recipient country in preparing contracts and so on.

2. Contents of the Study

(1) Contents of the Study

The purpose of the Basic Design Study conducted by JICA on a requested project is to provide a basic document necessary for appraisal of the project by the Japanese Government. The contents of the Study are as follows:

a) confirmation of the background, objectives, benefits of the project and

also institutional capacity of agencies concerned of the recipient country necessary for project implementation,

b) evaluation of the appropriateness of the project for the Grant Aid Scheme from a technical, social and economical point of view,

c) confirmation of items agreed on by the both parties concerning a basic concept of the project,

d) preparation of a basic design of the project,

e) estimation of cost of the project.

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the project is confirmed considering the guidelines of Japan's Grant Aid Scheme.

Final project components are subject to approval by the Government of Japan and therefore may differ from an original request. Implementing the project, the Government of Japan requests the recipient country to take necessary measures involved which are itemized on Exchange of Notes.

(2) Selection of Consultants

For smooth implementation of the study, JICA uses (a) registered consulting firm(s). JICA selects (a) firm(s) based on the proposals submitted by the interested firms. The firm(s) selected carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by JICA.

The consulting firm(s) used for the study is (are) recommended by JICA to a recipient country after Exchange of Notes, in order to maintain technical consistency and also to avoid any undue delay in implementation should the selection process be repeated.

3. Japan's Grant Aid Scheme

(1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non reimbursable funds to procure the equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with relevant laws and regulations of Japan. The Grant Aid is not supplied through the donation of materials or such.

(2) Exchange of Notes (E/N)

Both Governments concerned extend Japan's Grant Aid in accordance with the Exchange of Notes in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid etc., are confirmed.

(3) "The period of the Grant Aid" means one Japanese fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedure such as Exchange of Notes, concluding a contract with (a) consulting firm(s) and (a) contractor(s) and a final payment to them must be completed.

(4) Under the Grant, in principle, products and services of origins of Japan or the recipient country are to be purchased.
When the two Governments deem it necessary, the Grant may be used for the purchase of products or services of a third country.
However the prime contractors, namely, consulting, contractor and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

(5) Necessity of the "Verification"
The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. The Government of Japan shall verify those contracts. The "Verification" is deemed necessary to secure accountability to Japanese tax payers.

(6) Undertakings Required to the Government of the Recipient Country
In the implementation of the Grant Aid project, the recipient country is required to undertake such necessary measures as the following:

a) to secure land necessary for the sites of the project prior to the works in case the project is facilities construction,

b) to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities in and around the sites,

c) to secure buildings prior to the installation work in case the project is providing equipment,

d) to ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid,

e) to exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts,

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f) to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

(7) Proper Use

The recipient country is required to maintain and use the equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for the operation and maintenance as well as to bear all expenses other than those covered by the Grant Aid.

(8) Re-export

The products purchased under the Grant Aid shall not be re-exported from the recipient country.

(9) Banking Arrangement (B/A)

a) The Government of the recipient country or its designated authority shall open an account in the name of the Government of the recipient country in a bank in Japan. The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by Government of the recipient country or its designated authority under the Verified Contracts.

b) The payments will be made when payment requests are presented by the bank to the Government of Japan under an Authorization to Pay issued by the Government of the recipient country or its designated authority.

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Major Undertakings to be Taken by Each Government

NO	Items	To be coveredby the Grant Aid	To be covered by the Recipient side
1	To bear the following commissions to a bank of Japan for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
2	To ensure prompt unloading and customs clearanceat the port of disembarkation in recipient country		
	1) Marine(Air) transportation of the products from Japan to the recipient country	●	
	2) Tax exemption and custom clearanceof the products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site	●	
3	To accord Japanese nationals whose services may be requiredin connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		●
4	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contract		●
5	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid		●
6	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for the transportation and installation of the equipment		●

MINUTES OF DISCUSSION ON THE BASIC DESIGN STUDY ON THE PROJECT FOR IMPROVEMENT OF MEDICAL EQUIPMENT FOR SEMIPALATINSK REGION IN THE REPUBLIC OF KAZAKHSTAN

(EXPLANATION ON DRAFT REPORT)

In October 1999, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched a Basic Design Study Team on the Project for Improvement of Medical Equipment for Semipalatinsk Region (hereinafter referred to as "the Project") to the Republic of Kazakhstan (hereinafter referred to as "Kazakhstan"), and through discussion, field survey, and technical examination of the results in Japan, JICA prepared a draft report of the Study.

In order to explain and to consult the Kazakhstan on the components of the Grant Aid Project, JICA sent to Kazakhstan the Draft Report Explanation Team (hereinafter referred to as "the Team") which is headed by Mr. Toshiyuki Iwama, Deputy Director of the Second Project Management Division, Grant Aid Project Management Department, JICA from March 19 to April 7, 2000.

As a result of discussions, both parties confirmed the main items described on the attached sheets. The Team will proceed to further works and prepare the Basic Design Study Report.

Astana, March 21, 2000

Mr. Toshiyuki Iwama
Leader
Basic Design Study Team, JICA

Dr. Maria N. Omarova
Chairperson
Agency of the Republic of
Kazakhstan for Health Matters

Dr. Kadirbek S. Amagulov
Chief
Health Department of East
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Chief
Health Department
City of Semipalatinsk

ATTACHMENT

1. Components of the Grant Aid Project

The equipment listed in Annex-1 was explained by the Team. It was revised on site following the agreement between the Kazakhstani side and the JICA Preliminary Study Team on the Technical Cooperation for the Improvement of Health Care Services in the Semipalatinsk Region. Members of that Team contributed to the revision of the equipment list. The Kazakhstani side accepted in principle the reason for the revision. However, the Kazakhstani side strongly requested to the Team to convey the equipment list as shown in Annex-2. It reflects the urgent needs of the medical institutions to realize the Project under the tight budget constraints of the Grant Aid. The final decision will thus be done in Japan.

2. Japan's Grant Aid Scheme

The Kazakhstani side understands the Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of Kazakhstan as explained by the Team and described in Annex 3 and Annex 4 of the Minutes of Discussions signed by both parties on October 26, 1999.

The Team points out that a quick customs clearance and tax exemption of all equipment provided under the Grant, particularly the mobile examination unit, is necessary for the success of the Project.

The equipment list and specification is confidential and should not be revealed to any outside parties before the tender.

3. Schedule of the Study

Based on the results of the discussions, JICA will complete the final report and send it to Kazakhstan by May, 2000.

4. Others

4.1 The consultant members of the Team will discuss the detailed specification of each equipment with their Kazakhstani counterparts during their stay in Kazakhstan. The final specification will then be determined in Japan in close collaboration with the Technical Cooperation group.

4.2 If the Project is implemented, the Agency of the Republic of Kazakhstan for Health Matters will be the Kazakhstani part to conclude contracts with the Japanese consultant/firm(s).

4.3 If considered necessary, the reagents and other consumable amounting up to one year's consumption will be provided in conjunction with the procured equipment. Thereafter the Kazakhstani part will bear all the running costs.

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Items and Quantity of Medical Equipment for Semipalatinsk Region

Function	No.	Description	Q'ty	Site				
				Academy Hospital	Pediatric Hospital	Diagnosis Center	Oncology Center	HRMA
Mobile Exam	1	Mobile examination unit	2	1		1		
X-ray/CT Function	2	CT Scanner Slip Ring Type	1			1		
	3	X-ray TV system	1			1		
	4	General X-ray unit w/Bucky table & stand	1			1		
	5	Mobile X-ray unit	2	1	1			
	6	Chest X-ray Fluorography	2	1		1		
	7	Automatic X-ray Film Processor	2	1		1		
Functional Examination	8	Ultrasound Unit (Stationary)	2		1	0	1	
	9	Ultrasound Unit (Portable)	2	1		1		
	10	Ultrasound Unit with Color Doppler and different probes	2	1		1		
	11	ECG 6-12 channels	4	1	1	1	1	
Clinical Laboratory Function	12	Biochemical Analyzer	3	1		1	1	
	13	Blood Gas Analyzer	1				1	
	14	Na/K/Cl analyzer	1				1	
	15	Automatic blood cell counter	4	1		1	1	1
	16	Table top autoclave	1		1			
	17	Deep Freeze Refrigerator	3	1		1	1	
	18	Urine Analyzer	3	1		1	1	
	19	ELISA auto plate reader	1			1		
	20	Urinary iodine analyzer	1			1		
	21	Hot air sterilization	1				1	
	22	Mobile sterilizer	1				1	
	23	Distiller	1				1	
	24	Table top centrifuge	1				1	
Pathological Function	25	Automatic tissue processor	1				1	
	26	Set of instrument for Pathologist	1				1	
	27	Cryostat	1				1	
	28	Microtome	1				1	
	29	Automatic slide stainer	1				1	
	30	Paraffin embedding	1				1	
	31	Stretching hot plate	1				1	
	32	Teaching microscope	1				1	
	33	Photograph exposure unit	1				1	
	34	Blood smearing instrument	3	1		1		1

Pathological Function	35	Automatic stainer	3	1		1		1
	36	Medical refrigerator (for Mobile Exam)	2	1		1		
Endoscopic Function	37	Gastrofiberscope	3	1		1	1	
	38	Gastrofiberscope pediatric set	1		1			
	39	Bronchofiberscope	3	1		1	1	
	40	Bronchofiberscope pediatric set	1		1			
	41	Colonofiberscope	3	1		1	1	
	42	Binocular microscope	7	2		2	2	1
	43	Multimedia Endovideo Education System	1			1		
	44	Bed for endoscopic examination	2	2				
	45	Laryngoscope	1				1	
	46	Proctomanoscope	1				1	
	47	Colonoscope	1				1	
	48	Coagulator for endoscope	1				1	
Surgical/ reanimation Function	49	Patient Monitor	6	2			4	
	50	Electric Suction Unit	4	1			3	
	51	Electrical surgical unit	1				1	
	52	Ventilator for children	1		1			
	53	Ventilator for adult	3	1			2	
	54	Anaesthesia with ventilator for children	1		1			
	55	Anaesthesia with ventilator for adult	3	1			2	
	56	Infusion pump	3	0	3			
	57	Major Surgery Instrument Set	3	1	1		1	
	58	Operating light	4	2			2	
	59	Surgical table	2				2	
	60	General diagnostic set	8	2	2	2	2	
	61	Reanimation System (intubation tubes of different sizes)	3	1			2	
	62	Solid-state bipolar coagulator	2	1			1	
	63	Autoclave	1				1	
	64	Intubation tube	1,000				1000	
	65	Wheel chair	2				2	

ANNEX- 2

Items and Quantity of Medical Equipment for Semipalatinsk Region

Function	No.	Description	Q'ty	Site				
				Academy Hospital	Pediatric Hospital	Diagnosis Center	Oncology Center	HRMA
Mobile Exam	1	Mobile examination unit	1			1		
X-ray/CT Function	2	CT Scanner Slip Ring Type	1			1		
	3	Surgical X-ray unit (C-arm)	1	1				
	4	X-ray TV system	3	1		1	1	
	5	General X-ray unit w/Bucky table & stand	3	1		1	1	
	6	Mobile X-ray unit	2	1			1	
	7	Chest X-ray Fluorography	1			1		
	8	Automatic X-ray Film Processor	3	1		1	1	
Functional Examina-tion	9	Ultrasound Unit (Stationary)	3		1		1	1
	10	Ultrasound Unit (Portable)	2	1		1		
	11	Ultrasound Unit with Color Doppler and different probes	2	1		1		
	12	ECG 6-12 channels	4	1	1	1	1	
Clinical Laboratory Function	13	Biochemical Analyzer	4	1		1	1	1
	14	Blood Gas Analyzer	2	1			1	
	15	Na/K/Cl analyzer	2	1			1	
	16	Automatic blood cell counter	4	1		1	1	1
	17	Deep Freeze Refrigerator	1			1		
	18	Urine Analyzer	3	1		1	1	
	19	ELISA auto plate reader	1			1		
	20	Urinary iodine analyzer	1			1		
Pathlogical Function	21	Automatic tissue processor	1				1	
	22	Set of Instrument for Pathologist	1				1	
	23	Cryostat	1				1	
	24	Microtome	1				1	
	25	Automatic slide stainer	1				1	
	26	Paraffin embedding	1				1	
	27	Stretching hot plate	1				1	
	28	Teaching microscope	1				1	
	29	Photograph exposure unit	1				1	
	30	Blood smearing instrument	3	1		1		1
	31	Automatic stainer	3	1		1		1
	32	Medical refrigerator (for Mobile Exam)	1			1		
Endoscopic Function	33	Gastrofiberscope	4	1		1	1	1
	34	Gastrofiberscope pediatric set	1		1			

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Function	No.	Description	Q'ty	Site				
				Academy Hospital	Pediatric Hospital	Diagnosis Center	Oncology Center	IIRMA
Endoscopic Function	35	Bronchofiberscope	3	1		1	1	
	36	Bronchofiberscope pediatric set	1		1			
	37	Colonofiberscope	3	1		1	1	
	38	Binocular microscope	7	2		2	2	1
	39	Bed for endoscopic examination	2	1			1	
	40	Laryngoscope	2	1			1	
	41	Proctomanoscope	1				1	
	42	Diagnostic laparoscopy with Video	1				1	
	43	Surgical laparoscopy unit with monitor	1	1				
	44	Coagulator for endoscope	1				1	
Surgical/ reanima- tion Function	45	Patient Monitor	6	2	2		2	
	46	Electric Suction Unit	6	1	1	2	2	
	47	Electrical surgical unit	2	1			1	
	48	Ventilator for children	1		1			
	49	Ventilator for adult	4	2			2	
	50	Anaesthesia with ventilator for pediatric	1		1			
	51	Anaesthesia with ventilator for adult	4	2			2	
	52	Major Surgery Instrument Set	3	1	1		1	
	53	Operating light	4	1	1		2	
	54	Surgical table	4	1	1		2	
	55	General diagnostic set	8	2	2	2	2	
	56	Reanimation System (inturbation tubes of different sizes)	4	1	1		2	
	57	Solid-state bipolar coagulator	2	1			1	
	58	Intubation tube	1,000	500			500	

Appendix 5

Cost Estimation Borne by the Recipient Country

1. Medical Academy Hospital

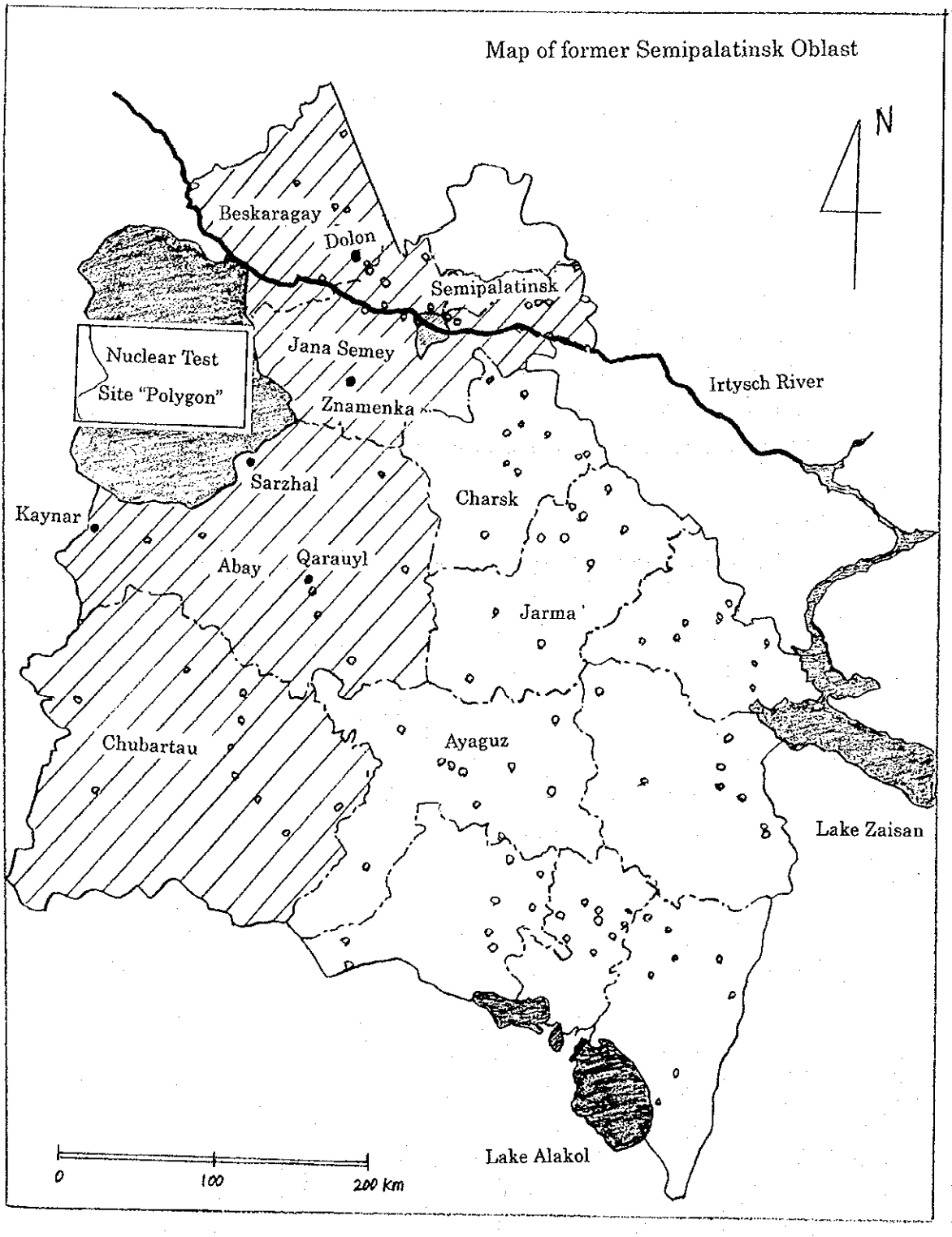
Floor work, X-ray protection work and pit work for X-ray TV	100,000 Tenge

2. Diagnostic-Consulting Center

Floor work, X-ray protection work for CT scanner	100,000 Tenge
Floor work, X-ray protection work for X-ray TV	100,000 Tenge
Garage upgrade work with heating system	600,000 Tenge

3. Oncology Hospital

Floor work, X-ray protection work for X-ray TV	100,000 Tenge
Total	1,000,000 Tenge



o Town or Village

The area of preliminary examination to be implemented by mobile examination unit